INDEX

VOL. III, MAY 1886-APRIL, 1887.

The reports of the meetings of the Royal Meteorological Society are due to the kindness of WILLIAM MARRIOTT, Esq., Fellow and Assistant Secretary of the Society. The notes signed by initials in this volume are here indexed under the full names of the authors.

A BBE, Cleveland. 576-582.
Arrial Reflections over Gas-wells, 440.
After-glows, see "Twilight Phenomena."
Agricultural Meteorology, 301.
Air as a Conductor of Heat, 497.
Alaska; Guide-book to the Inland Pas-Alaska; sage, 98. sage, 98.
Aleutian Islands, 12.
Alexander, 8., 486.
Allen, H, 561-566.
Alitiudes in the Sierra de Cordoba, 206.
Alitiude, Comparative, of Leadville, 205.
American Geographical Society, 150.
Anchor-ice, see "Ice"
Andes, Fœhn in the, 507-516.
Anemometer. Hagemann's, 562.
Anticyclones, 117, 417. See also, "Coldwaves."

waves."
Anticyclonic Cold in Winter, 25-32.
"Types of the Pacific Coast, 284.
Antonio Alzate Society, 245.
Argentine Meteorology, 398.
Arizona, Irrigation in. 391.
Artesiau Water in Montana, 546.
"In Western Arid Region, 101.
"Wells at Pesth, 239.
"Wanted, 297.
Atmosphere and Organic Life, 57.
Atmospheres, Schlemueller's Cosmic, 97.
Atmospheric Pressure and Escape of Gas from Mines, 240.
Atmospheric Pressure and the Tidal Wave, 166.

Wave, 166. Aurora, The Noise of the, 239. Austrian Meteorological Service, 99, 488.

Baker, H. B., 430-436.
Barograms, Curvatures in, 296, 564.
Barometer, History of the, 11.
"Small Oscillations of the, 347.
"Why Does it Rise and Fall?

566-573. Barometer, Wind and, 561-566. Barometers, Luminous, 242.

Bøssler's Weather-chart, 148. "Weather Journal, 6. Beadle, W. H. H., 230-232. Belgian Prize Question, 1. Ben Nevis, 15. Ben Nevis, 15.
Berlin Branch, German Met. Society, 1.
Bishop, Sereno, 127-136, 193-196.
Bishop's Essay, 388.
"Ring, 94-95.
Blake's Predictions, 161.
Blizzard, The, 112.
Blue Hill Met. Observatory, 439.
Boards of Health, State, 296.
Brussels, Observations at, 96.

CALIFORNIA Climate, 53, 63, 206, 547. California, Forest and Floods in, 405. California, Prospects for Yellow Fever in, California, Prospects for Yellow Fever in, 303.
California, Sea-breezes and Northers in. Northern, 306.
Canadian Met. Service, 6.
Cape Horn, Warm Water off, 341.
Carlisle, Climate of, 346.
Carbonic Acid in Air, 240, 491.
China, Fornadoes in, 156.
Chinock Winds, 330-339, 342, 467-475, 516-523:
Cholera, Rainfall and, 198.
Clayton, H. Helm, 94, 186-190, 212-220, 270-280, 336-367, 387, 417-428, 459-467.
Climate and Hay-fever, 58.
Climatic Treatment of Disease, 2.
Cloud-formation in Cyclones, 186-190.
Cloud-phenomena, Diurnal Period of, 540.
Clouds, Heights of, 241, 492
"Nomenclature of, 491.
"Roll-cumulus, 450.
Cold, Asiatic Pole of, 242.
"Sensations of Extreme, 155.
Cold-waves, Woodruff's, 51.
Colonial Clim. Statistics, 56.
Colonial clim. Statistics, 56.
Colonies and Colonists, 3.
Colorado, Met. Society, 115.
Connecticut River, Changes in, L.

Connecticut River, Changes in, 1.

Consular Reports of the U. S., 395. Consumption in Michigan, 52. Costa Rica, Observations in, 347. Crowborough, Climate of, 147. Croydon District, Climate of, 396. Currents, Vertical, in Cyclones, 170-186. Cumulus Clouds, 450, 492. Cyclone of January 9, 1886, in New England, 367. land, 367 Cyclone of June 2, 1885, in the Arabian Sea, 56.

Sea, 56.

Cyclones and Precipitation, 316.

'y Anticyclones and Pericyclones, 117.

'o Cloud-formation in, 186-190.

'Temperature in, 157.

'Vertical Currents in, 170-186.

Cyclonic Phenomena in New England, 250-265, 316-329, 367-347.

Cyclonic Types of the Pacific Coast, 284.

DaVIS, W. M., 40-48, 49 54, 65, 69, 103, 105, 512, 116, 166, 389, 442, 443, 492, 507-516, Dawson, W., 93. Death-rate, Temperature and Humidity, 54.

Desert Ocean Tracts, 153. Dew. 7

Dew, 7
Dewey, W. R., 25–32.
Disease, Climatic Treatment of, 2, Meteorology and, 34.
Dolbear, A. E., 339.
Dougherty's Theory, 60.
Drought in Great Britain, 145.
Droughts, Periodicity in, 294.
"Tillage as a Remedy for, 298.
Dust-storms. Peking, 79–82.
" in New South Wales, 501.
Dyer, Lieut, his "Use of Oil at Sea," 52.

Earthquake in Greece, 220-222. Earthquake, Line of Origin of Charleston, 475-484. 415-484.
Earthquake Records in the Rocks, 399.
Earth's Internal Heat, Utilization of, 397.
Earth-temperatures, 397
Electrical Globe, Artificial, 268.
Electricity, Atmospheric, 145, 241.
Observation of,

533-531, 551-561.
Electricity, Geothermal Currents of, 268.
Ellsha Mitchell Scientific Society, 94.
England, Severe Winter in, 108.
English Weather-service, 61.
European Weather-review, 9, 109, 203.
Eurydice Squall. The, 71, 535.

FALKLAND Islands, Peat Slide in the.

GALE, of Oct. 15-16, 1886, over the British Islands. 344.
Gardner, Capt. W. H., 341.
Gas, Natural 489.
German Met Journals 198.
German Lightning-strokes in. 488.
"Thunderstorms in. 40.
"Weather-rules in, 142.
Gibson, H. B., 119-127.
Gibson, H. B., 119-127.
Giassford, W. A., 53, 201, 280-290.
Glazier, Lake, 293.
Gordons Report on Hudson 'sBay. 7.
Great Britain. Thunderstorms in, 71.
Great Britain. Thunderstorms in, 71.
Great Lakes, Losses on the. 284.
Greece, Earthquake in, 220-222.
Greeley, Gen., Appointed Chief Signal Officer, 487.
Ground-ice, see "Lee"

Ground-ice, see "Ice" Goulf-stream in Winter, Water-spouts on, 119-127.

HAGEN on the U.S. Weather Service, Haldinger's Brushes, 387. Hall-storms in Europe, Increase of the, 106. Hann, Dr. and the Feshu-literature, 533. Harrington, M. W., 79-82, 330-339, 467-475, 516-523.
Havana, Vines' Observations at, 95.
Hay-fever, 58, 494.
Health-resorts in Nexico, 542
Heat, Utilization of Earth's Interior, 397.
Hazen, Death of Gen., 437.
Hazen, H. A., 82-92.
Helena, Minimum Temperature at, 50
Hong Kong, Weather-service, 249.
Hovey, H. C, 227-232.
Hudson's Bay, 7, 202.
Humldity and Death-rate, 55.
Hurricane over the Fiji Islands, 405. 516-52

TCE. Anchor or Ground, 49, 92, 141. Ice-storms, Three, 32-39 Illinois Weather-service, 160. India, Thunderstorms in, 46. Indian, Influerscorns in, 49.
Indiana, Tornado in, 93.
Indiana Territory, Prairie-fires in, 293.
Iowa Squalls, 166.
"Weather-service, Exposition of, 219.
Iquique, Water Supply of, 535.
Irrigation in Arizona, 391.

JAPANESE Imperial Met. Observatory, 394.

KILLARNEY. Climate of, 56. Krakatoa 301.

A Krakatoa 391.

Lake Bottoms, River-beds in, 5.
Lake Glazier, 293.
Lakes, Depths of Fresh-water, 398.

Selches on, 54, 503.
Langley, 8, P. 190-193.
Latta, J. **, 386.
Leadville, Commarative Altitude of, 295.
Leeward and Windward Weather, 13.
Lick Observatory 246.
Lightning, Ball or Globe, 383.
Lightning, Ball or Globe, 383.
Lightning, Frotection from, 395.
Lightning, Frotection from, 395.
Lightning, J. S, 533.
Loomis' Contributions to Meteorology, 212-229, 270-280, 336-337, 417-428, 459-467.
Losses on the Great Lakes, 294.
Lounsberry, C. A., 112.

Lounsberry, C. A., 112. Lower California, Fruit Supplies of, 538.

M ACKINAC Straits, Opening of, 116, Magdebürgische Zeitung Observatory, 205.

Magnetism, Meteorology and Terrestrial, 265-270, 352-356, 426-430. Marine Met. Instruments, Exhibition of,

550. Marine Temperature Observations, 549. Markham, H., 534. McAdie, Alexander, 523-531, 551-561. Mediterranean Seas, Temperature of the

Meinhard, M., 141, 142

Meteor, 388. Meteorological Record-book, Oswell's, 487.

Meteorological Record-book, Uswell's, 487.
Meteorology and Disease, 54.
"Terrestrial Magnetism. 265–
270, 382–356, 426-430.
"Agricultural, 301.
Loomis," Contributions to, See
"Loomis," Loomis, 277.

Notes on High-level, 537. Popular Errors in, 576-582. Professor Ferrel's New, 439. Relations to Other Sciences, 450.

Mexico, Health-resorts of, 542 Yellow Fever on the West Coast of, 303.

Michigan, Consumption in, 52 Hay-fever in, 59.

Hay-fever in, 59.
State Board of Health, 245, 246.
Weather-service, 349, 437.
Mineral Springs of the United States, 439.

Minnesota Signal Service, 343. Montana, Artesian Water in, 546. Mt. Washington, 246, 459. Mountain Met. Stations of Europe, 15-24.

NEW ENGLAND, Cyclonic Phenomena

NEW ENGLAND, Cyclonic Phenome in, 250–265, 316–329, 367–389, 407–417. New England Met. Society, 105, 151, 307. "Rainfall, 95, 411. "Thunderstorms, 399. New South Wales, Dust Storms in, 561, New Zealand, 103, 232–238, 442. Nicholson, A. W., 54, 58, 96, 102. Northers of California, 207, 300. Norway, Thunderstorms in, 69.

OAKLAND, Cal., Climate of, 52, Observatory, Iron Tower as an, 144, Observers and Meteorologists, 210, Oil, Use of, at Sea, 52, 397, 405, 545, Optical Phenomenon, A Remarkable, 486, 533,

Owen, Richard, 220-222, 265-270, 352-356, 383, 426-430.

Ozone and Disease, 54.

and Pneumonfa, 102.

in Therapeutics, 573-576.

PACIFIC Coast, 201, 280-290.
Painter's Wife's Island, 149.
Pamperos, The, 76.
Peat-silde in the Falkland Islands, 297.
Peking Dust-storms, 79-82.
Pericyclones, 117, 220.
Persian Gulf, Storms in the, 74.
Pesth, Artesian Wells at, 239.
Phenological Observations, 240, 404.
Pike, F. V., 32-39.
Pike's Peak, 459.
Pilot Charts of the North Atlantic Ocean, 205. Pleiades, Seventeen Naked-eye Stars in

the, 534.
Pneumonia, Causation of, 430–436.
Ozone and, 102.

Precipitation and Path of Cyclones, 264. Prediction, Experiment in Local Weather, 454-458, 533. 454-458, 533.
Predictions of Frost, 154.
Local Weatner, 440, 531.
In New Zealand, 103.
Preservation, Natural, 12.
Prince C. L. 388.

Prince, C. L., 388. Pumping of Barometer, 562.

QUICKSAND, A Dry, 4.

RADIATION, Water-vapor and, 443.
Railway Met. Observations, 209.
Rainband Vindicated, 146.
Rainfall and Cholera, 198.
"Fires, 9.
Chart of California, 53.

Chart of California, 53.
Forests and, 307.
In Croydon District, 396,
'New England, 95, 260, 411.
on Pacific Coast, 64.
Statistics, 307.
Tables, Error in Schott's, 12.
See also 'Precipitation.'

"See also "Precipitation."
Rain-gauge Investigations, 66.
Ramsay, a, 566-572.
Red-glows. Origin of the, 127-136, 193-193.
River-beds in Lake-bottoms, 5.
River-beds in Lake-bottoms, 5.
Roll-cumulus, 450
Rotch, a. L., 15, 197, 310-316, 385, 454-458, 533,
Royal Met. Society, Meetings of the, 10, 55, 108, 163, 344, 403, 449, 491, 549.
Roumanian Met Institute, 95, 197.
Russia, Thunderstorms in, 43.

T CLOUD, Minn., Tornado at, 227-232.
Sandwich Islands, 13.
Sanitary Conventions, 246.
Sargent, J. Bradford, 531.
Schaeberie, J. M., 97.
Schiemueller's Cosmic Atmospheres, 97.
Scintillation, 145, 243.
Scutari, Observations at, 405.
Sea-breezes in Northern California, 300.
Seiches, 54, 503. Seiches, 54, 503, Selangor, Observations at, 56. Sherman's Movement of Weather Areas.

386, Shurlye's Consumption in Michigan, 52. Signal Service, Reorganization of the, 445. Smithsonian Annual Report, 147. Smith's Sewerage, etc., 96.

"Solar Radiation, 223-226.
Snow as a Cause of Cold Weather, 389.
Snowflakes, Enormous, 489.
Solar Radiation near Birmingham, 223-226.
Sonnblick Observatory, 385.
Spectrum, Length of the, 339.
Squall, The Eurydice, 71, 535,

"A Suddlen, 165.

A Sudden, 165.
Squalls 10wa 166.
Staked Plains, Artesian Wells in the, 101.
Starek, Emil, 475-484.
State Reports, 198.
Storms, 74, 168, 212.
Character and Paths, 290-292.
Law of, in Eastern Seas, 396.
Trogressive Motion of, 270, 356.
Switzerland, Thunderstorms in, 42.

TEMPERATURE and Altitude in the Alps, 240.

Temperature and Disease, 54.
in Cyclones, 157.
in Tunnels of the Alps, 239.
ii Observations, Marine, 549. . of Mediterranean Seas, 49.

Temperature Subterranean, 109.
Thermometer, Denton's Unalterable, 146.
- Exposure, 82-92.
Metallic, 137-141.
Thermometric and Calorimetric Conductivity.

Thermometric and tivity, 497.
Thunder-squalls in Uruguay 75.
Thunder-squalls in Uruguay 75.
Thunder-squalls in Uruguay 75.
Composite Portraiture of 205

300 Foreign Studies of, 40–48, 65, 69–79. Increase of, in Europe, 106. in New England, 399. Moving from the East, 387. ..

Noving from the East, oh.
Observations of, 105.
Periods in Winter, 247.
Studies of the Signal Service, 299.
Tidal Waves, Atmospheric Pressure and,

Tidal Waves, Atmospheric 1168 as Storm-warnings, 144.
Tillage, A Remedy for Droughts, 298.
Tokio, Imperial Met. Observatory, 394.
Topography. Influence on Storms, 290-292.
Tornado, A Connecticut, 310-316.

at St. Cloud, 227-236.

A Winter, 498.

- Cellars, 248

in Central Indiana, 93.

Studies of the Signal Service, 349.
Tornadoes in China 156.
Trade-wind, Deviation of Term, 111.
Trembley's Met. of Oakland, 52.
Twilight Phenomena, 95, 109, 242.

"See also "Red-glows."

UPTON, W., 95, 250-265, 316-329, 367-383, Uruguay, Thunder-squalls in, 75.

VAN BEBBER'S Handbuch, 148. Viñes', Observations at Havana, 95.

Visibility of Distant Objects, 239. Volcanic Phenomena in New Zealand, 232,

WALDO, L. 137-141.
Warner, Prize Essays, The, 53, 127-136, 193-196.
Washburn Oservatory, 243.
Washington Territory, Forest Fires in, 158.
Water-spouts on the Gulf-stream in Windows 116-157.

ter, 119-127.
Water-vapor and Radiation, 443.
Wave-lengths Hitherto Unrecognized, 190-

Water-rapid Science of the Association of the Assoc

YAKOUTSK. Frozen Ground at, 145. Year. A Remarkable. 210 Yellow Fever in New Territory, 302. "Mr Stathem's Articles on, 343.

ZONDA, Vente de, 507-516.

ERRATA:

p. 97, for Schlemneller, read Schlemueller p. 533, for V. Hann read J. Hann.

